

Studies in the *Cunoniaceae*

IV. Further notes on New Caledonian *Acsmithia*

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Summary : The identity of *Acsmithia densiflora* (Brongn. & Gris) Hoogl. is re-examined. Two new species, formerly referred here, are described : *A. collina* Hoogl. and *A. meridionalis* Hoogl.

Résumé : L'identité d'*Acsmithia densiflora* (Brongn. & Gris) Hoogl. est reconsidérée. Deux espèces nouvelles, auparavant rattachées à cette espèce, sont décrites : *A. collina* Hoogl. et *A. meridionalis* Hoogl.

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The careful re-examination of the type collection of *Spiraeanthemum densiflorum* Brongn. & Gris in connection with the preparation of the account of the *Cunoniaceae* for the Flore de la Nouvelle-Calédonie et Dépendances has compelled me to apply the name *Acsmithia densiflora* (Brongn. & Gris) Hoogl. to a species different from the one to which I applied it in my earlier paper (HOOGLAND, 1979).

In the infructescences of *Vieillard 566*, the type of *Spiraeanthemum densiflorum*, the follicles have all lost their seeds and consequently offer no indication of the number of ovules in each carpel. Some old flowers are present, however, and permit to establish the number of ovules per carpel as 4(-6), and not one as I had tacitly accepted in 1979. The type specimens do not have any terminal buds and the presence or absence of hairs on these can thus not be established. On the basis of its ovule number the species has to be compared with *A. undulata* (Vieill.) Hoogl. and *A. laxiflora* Hoogl.

Recent collections referable to these species include a number of specimens with pedicel and sepals distinctly less hairy than in typical *A. undulata*, thus intermediate between this species and *A. laxiflora*. The type of *Spiraeanthemum densiflorum* fits in with these collections and consequently the following synonymy is established :

***Acsmithia densiflora* (Brongn. & Gris) Hoogl.**

Blumea 25 : 496 (1979), as to basionym only.

— *Spiraeanthemum densiflorum* BRONGN. & GRIS, Bull. Soc. Bot. France 9 : 74 (1862). Type : *Vieillard 566*, Balade, 1855-60 (holo-, P; iso-, P).

— *Spiraeanthemum undulatum* VIEILL., Bull. Soc. Linn. Normandie 9 : 342 (1865). Type : *Vieillard*

- 2078 (lecto-, chosen here, P ex CN; iso-, A, B, BM, CANB, FI, G, GH, K, L, MEL, MO, NOU, NSW, NY, P, UC, W, Z).
 — *Acsmithia undulata* (VIEILL.) HOOGL., *Blumea* 25 : 501 (1979).
 — *Acsmithia laxiflora* HOOGL., *Blumea* 25 : 498 (1979). Type : *Hürlimann 1783* (holo-, Z; iso-, A, NY, P).

This species is found in northeastern New Caledonia, generally on schists or grauwackes, rarely on ultrabasic rocks (Fig. 1).

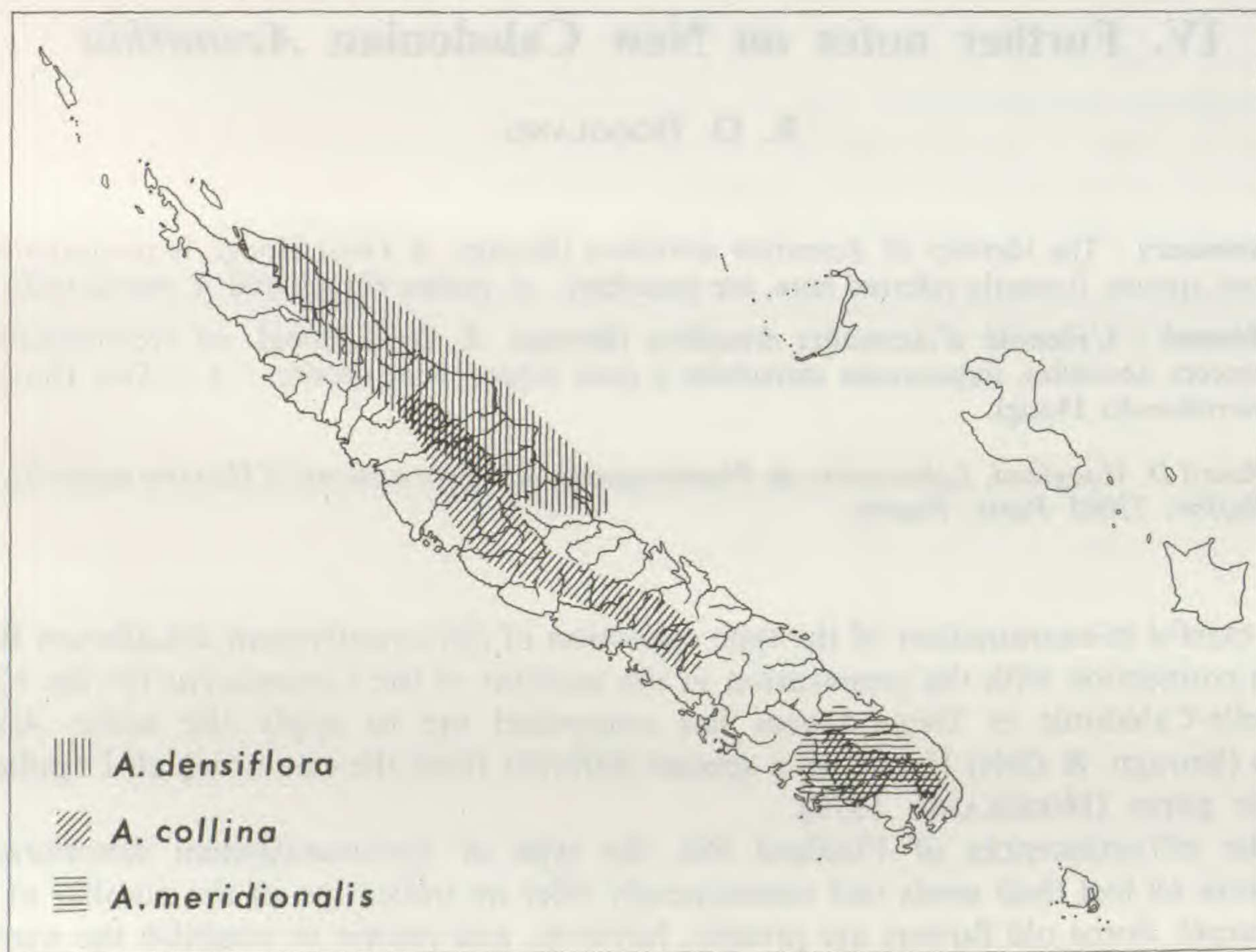


Fig. 1. — Distribution map of the three species of *Acsmithia* referred to.

The species referred to as "*Acsmithia densiflora*" in my 1979 paper is represented by numerous collections. In fact, it appears that two taxa are involved which are closely related but sufficiently distinct to be accepted as species. The following table lists the differences between these :

A. collina

Disk consisting of a number of \pm free lobes alternating with the stamens, at most sometimes partly somewhat connate and then constituting a thin, interrupted ring.

Style glabrous (or at most with a few hairs near the base, like those on the carpel).

Follicles 1.5-2.2 mm long.

Sepals 1.2-2.0 mm long.

A. meridionalis

Disk a thick ring, at most with a few interruptions above antisealous stamens.

Style in the lower third to half of the adaxial side with a narrow line of strigose hairs.

Follicles ca. (2-)2.5-3.5(-4) mm long.

Sepals (1.6-)1.9-2.3 mm long.



Fig. 2. — *Acsmithia collina* : 1, flowering branch $\times 2/3$; 2, flower $\times 8$; 3, ovary $\times 8$; 4, fruit $\times 5$. — *A. meridionalis* : 5, flowering branch $\times 2/3$; 6, flower $\times 8$; 7, ovary $\times 8$; 8, fruit $\times 5$. (1-3, MacKee 29713; 4, Balansa 2303; 5-7, MacKee 42993; 8, MacKee 41867).

Acsmithia collina Hoogl., *sp. nov.* — Fig. 1 (map); 2, 1-4.

Frutex vel arbor ramulis glabris, juvenilibus resinosis. Stipulae triangulari-lanceolatae, apice acuto, infra glabrae vel sparsim strigosae, resinosae. Folia 3-5 in verticillo, petiolata, elliptica vel elliptico-obovata, (4-)7-10(-13)-nervata, basi acuta decurrente, apice acuto, obtuso, vel rotundato, glabra, juvenilia resinosa. Inflorescentiae 30-175-florae, axillares. Sepala 1.2-2.0 mm longa, infra glabra. Stamina numero diplostemono vel nonnihil minore. Discus lobis liberis staminibus alternantibus vel quandoque intra stamen leviter conniventibus, tum anulum tenuem passim interruptum formantibus. Ovarium 3-5(-6) carpellis liberis, sparsim strigoso-hirsutis, uniovulatis, stylo glabro. Folliculi 1.5-2.2 mm longi.

Species carpellis uniovulatis, ramulis novellis glabris resinosis a A. densiflora bene distincta; a A. pedunculata foliis manifeste petiolatis, a A. meridionali sepalis et folliculis minoribus, stylo glabro (vel interdum prope basin tantum strigoso), et foliis planioribus differt.

TYPE : MacKee 30809, Mé Maoya, contrefort sud du Djiaouma, 800 m, 7 March 1976 (holo-, P; iso-, NOU (n.v.), P, and being distributed to CANB, L, MO, Z).

PARATYPES : Balansa 2303; Bernardi 10436, 12434, 12720; Brinon 518; Guillaumin & Baumann-Bodenheim 10976, 11034, 11649, 11828, 12499; Hoff 165; Jaffré 1102; MacKee 4432, 14636, 15327, 20540, 25164, 26748, 26810, 27035, 29713, 30991, 41343, 42432, 42555, 42577; McPherson 3682; Musselman, Delzell & Rich 5222, 5397; Pancher s.n.; Schmid 148; Virot 588.

Acsmithia collina occurs, like *A. meridionalis* but less commonly, in the southernmost part of New Caledonia, and also in the ranges of central New Caledonia, on ultrabasics, schists and grauwackes (Fig. 1).

Acsmithia meridionalis Hoogl., *sp. nov.* — Fig. 1 (map); 2, 5-8.

Frutex vel arbor ramulis glabris, juvenilibus resinosis. Stipulae triangulari-lanceolatae, apice acuto, infra glabrae, resinosae. Folia 4(-5) in verticillo, petiolata, elliptica vel anguste elliptica, (5-)7-12(-15)-nervata, basi acuta decurrente, apice acuto, obtuso, vel rotundato, glabra, juvenilia resinosa. Inflorescentiae 30-75-florae, axillares. Sepala (1.6-)1.9-2.3 mm longa, infra glabra. Stamina numero diplostemono vel nonnihil minore. Discus annularis aliquanto crassus staminibus margine impressis, quandoque intra stamen interruptus. Ovarium (0-)3-5 carpellis liberis, sparsim strigoso-hirsutis, uniovulatis, styli dimidio inferiori adaxiali strigoso. Folliculi (2-)2.5-3.4(-4) mm longi.

Species carpellis uniovulatis, ramulis novellis glabris resinosis a A. densiflora bene distincta; a A. pedunculata foliis manifeste petiolatis, a A. collina sepalis et folliculis majoribus, disco crasso \pm annulari, styli dimidio inferiori adaxiali strigoso, et foliis frequenter plus minusve bullosis differt.

TYPE : MacKee 38821, haute Yaté, Rivière Bleue, 150 m, 15 March 1981 (holo-, P; iso-, NOU (n.v.), P, and being distributed to L, MO, Z).

PARATYPES : Aubréville & Heine 48; Balansa 1083, 2300; Baudouin s.n.; Baumann-Bodenheim 13927, 14211, 14251, 14275, 14486, 14970; Bernardi 9497 bis, 12441; Blanchon 161, 628, 641; Brinon 592, 1249; Brousmitche s.n.; Buchholz 1549, 1755; Deplanche 382 bis; Dickison 220, 242; Franc 1761 A; Guillaumin 8410; Guillaumin & Baumann-Bodenheim 10707, 11374, 11428, 11533, 11546, 11822; Hoff 356, 360, 881; Hürlimann 488, 489, 1048; Jaffré 157, 216, 2478; MacKee 2063, 2326, 2638, 2683, 4473, 10117, 18557, 18561, 20231, 30674, 37225, 38771, 41867, 42518, 42993; McPherson 2430, 2435, 2513, 3650, 4437, 6453; Pancher s.n.; Schmid 1107, 4938, s.n.; Stauffer, Blanchon & Boulet 5797; Suprin 20, 1043; Thorne 28649; Uhe 871, 955; Veillon 89, 4303, 5992; Vieillard 566/575, 575; s. coll. (Inst. Bot. de Caen); s. coll. (ex Herb. Mus. Par.).

A. meridionalis occurs in the southernmost part of New Caledonia on ultrabasics (Fig. 1).

Further information on these species, including descriptions and full citation of the specimens studied, will be included in the forthcoming revision of the *Cunoniaceae* in the Flore de la Nouvelle-Calédonie et Dépendances.

REFERENCE

HOOGLAND, R. D., 1979. — Studies in the Cunoniaceae. II. The genera *Caldcluvia*, *Pullea*, *Acsmithia*, and *Spiraeanthemum*. *Blumea* 25 : 481-505.